

b) generating a reflected light spectrum from the tissue or cells by illuminating the stained tissue or cells with light;

c) directing the reflected light spectrum to a spectrometer;

d) comparing the reflected spectrum of the stained or dyed tissue or cells with a

library of previously obtained spectra; and

e) correlating the reflected light spectrum with a disease state, whereby an in situ

diagnosis of a disease state is made.

3. (Amended) A method as in Claim 1 where the biological stain or dye or combination of biological stains or dyes comprises a metachromatic biological stain or dye.

5. (Amended) A method as in Claim 1 wherein said comparing comprises the use of a digital microprocessor.

7. (Amended) A method as in Claim 1 wherein the tissues or cells are thought to be diseased or metaplastic .

8. (Unchanged) A method as in Claim 1 where the spectrometer is able to measure light for a range of or some part of a range of wavelength from 200 to 1100 nanometers.

9. (Amended) A method as in Claim 1 where the reflected light spectrum is measured and recorded, and said measuring comprises the use of a photometer and one or more light filters.

10. (Amended) A method as in Claim 1 wherein the tissues or cells are of at least one organ selected from the skin, cervix, vagina, mouth, colon, esophagus or internal organs.

11. (Amended) A method as in Claim 1 wherein, prior to said comparing step, a reflected light spectrum from unstained tissue or cells is subtracted from the spectrum of the stained tissue or cells.

12. (Amended) A method for diagnosing a disease state in situ in biological tissue or cells of a living organism comprising:

a) applying to the tissue or cells a photo-reactive biological stain or dye or a combination of photo-reactive biological stains and dyes to stain the tissue or cells;

b) generating a reflected light spectrum of the photoreactive biological stain or dye applied to the stained tissue or cells by illuminating the stained tissue or cells with light while simultaneously measuring and recording the reflected light spectrum of the photoreactive biological stain or dye applied to the stained tissue or cells with a cytochemical or histochemical property of the tissue or cells.

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c) correlating the reflected light spectrum

c) directing the reflected light spectrum to a spectrometer;

d) comparing the reflected spectrum of the stained or dyed tissue or cells with a library of previously obtained spectra; and

e) correlating the reflected light spectrum with a disease state, whereby an in situ diagnosis of a disease state is made.

13. (Amended) A method for the cytotoxic destruction of dysplastic, pre-cancerous or cancerous cells comprising:

a) applying to the cells a biological stain or dye or a combination of biological stains and dyes to stain the cells;

b) generating a reflected spectrum by irradiating the stained cells with light to induce photo oxidation of the biological stain or dye and

As wk c) simultaneously monitoring the reflected spectrum of the stained or dyed cells during irradiation.

15. (Amended) A method as in Claim 13 where the biological stain or dye or combination or biological stains and dyes comprises a metachromatic biological stain or dye.

17. (Amended) A method as in Claim 13 wherein said monitoring comprises measuring the reflected spectrum, using a spectrometer able to measure light having a wavelength from 200 to 1100 nanometers.

18. (Amended) A method as in Claim 13 where the reflected light spectrum is measured and recorded, and said measuring comprises the use of a photometer and one or more light filters.

19. (Amended) A method as in Claim 13 where the tissues or cells are selected from the group consisting of the skin, cervix, vagina, mouth, colon, esophagus, and internal organs.

Please cancel claims ~~2, 4, 6, 14, 16~~ without prejudice.

### STATUS OF THE CLAIMS

Claims 1 through 19 are pending in the application prior to this Amendment.

Claims 1, 3, 5, 7, 9-13, 15, and 17-19 are being amended.

Claims 2, 4, 6, 14 and 16 are being canceled by this Amendment.

Claims 1, 3, 5, 7-13, 15, and 17-19 are pending after this Amendment.

### REMARKS